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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,155	01/28/2004	Michael E. Polom	GP-301772	3412
7590 10/25/2005 CHRISTOPHER DEVRIES General Motors Corporation Legal Staff, Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000			EXAMINER PANG, ROGER L	
			ART UNIT 3681	PAPER NUMBER

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/766,155	<b>Applicant(s)</b> POLOM ET AL.	
	<b>Examiner</b> Roger L. Pang	<b>Art Unit</b> 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 5-7, 9 and 11-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 10 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*Ch*

### DETAILED ACTION

The following action is in response to the amendment filed for application 10/766,155 on September 27, 2005.

#### *Election/Restrictions*

Claims 11-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 29, 2005.

Please Note: claims 5-7 and 9 are also being withdrawn, as they do not read upon the elected species.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 8, 10, and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Masberg '998. With regard to claim 1, Masberg teaches a control system for a displacement on demand engine comprising: an engine 1 having a crankshaft 10; a flywheel 4 starter generator that communicates with said crankshaft; and a controller 31 that communicates with said engine and initiates cylinder deactivation during engine operation (Col. 4), wherein said FSG adjusts torque output to said crankshaft to reduce engine speed variation during cylinder deactivation (Col. 4; Col. 14). With regard to claim 2, Masberg teaches the system wherein said FSG

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operates at a predetermined speed based on engine speed  $n$  (Fig. 1a, Fig. 1b; torque being a function of speed). With regard to claim 3, Masberg teaches the system wherein said controller adjusts current to said FSG to increase torque when engine sag is detected (Figs. 1a, 1b). With regard to claim 4, Masberg teaches the system wherein said controller adjusts current to said FSG to decrease torque when engine boost is detected (Figs. 1a, 1b). With regard to claim 8, Masberg teaches a method for operating a vehicle having an engine 1 with a crankshaft 10 and cylinders and a flywheel starter generator 4 that communicates with said crankshaft, comprising: transitioning between an activated operating mode wherein all of the cylinders are operating and a deactivated operating mode wherein less than all of the cylinders are operating (Col. 4); sensing engine speed  $n$  (via 16); and adjusting torque output to said crankshaft using said FSG to reduce engine speed variation caused by an unrequested change in engine speed in said deactivated mode (Figs. 1a, 1b; torque being a function of speed). With regard to claim 10, Masberg teaches the method further comprising operating said FSG at a steady state speed based on said engine speed (countering fluctuation, no fluctuation = steady state). With regard to claim 16, Masberg teaches a method for operating a vehicle having an engine 1 with a crankshaft 10 and cylinders and a flywheel starter generator 4 that communicates with said crankshaft, comprising: operating the FSG at engine speed (inherent, both are connected); operating the engine in one of a first mode wherein all the cylinders are operating and a second mode wherein less than all of the cylinders are operating (Col. 4); operating the engine in the other of the first mode and second mode defining a transition; and adjusting torque output to said crankshaft using said FSG to reduce engine speed variation caused by an unrequested change in engine speed during said transition (Col. 4; Col. 14). With regard to claim 17, Masberg teaches the method

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wherein the step of adjusting torque includes adjusting current to said FSG to increase torque when engine sag is detected (Figs. 1a, 1b). With regard to claim 18, Masberg teaches the method wherein the step of adjusting torque includes adjusting current to said FSG to decrease torque when engine boost is detected (Figs. 1a, 1b).

***Allowable Subject Matter***

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments, see Non-final Rejection, filed on August 25, 2005, with respect to claims 1 and 8 have been fully considered and are persuasive. The prior rejections of claims 1 and 8 have been withdrawn.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Severinsky, Phillips, Saito and Wakashiro have been cited to show similar engine/motor controls.

**FACSIMILE TRANSMISSION**

Submission of your response by facsimile transmission is encouraged. The central facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place

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the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

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(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark

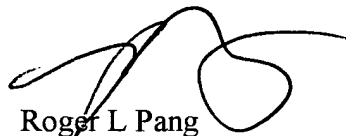
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Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang  
Primary Examiner  
Art Unit 3681

October 20, 2005